

IN THE SPECIFICATION:

Page 1, before line 1, insert the following topic heading:]

BACKGROUND OF THE INVENTION

FIELD OF THE INVENTION

Page 1, lines 7 to 20, replace the paragraph with the following amended paragraph.

THE PRIOR ART

The impellers of radial pumps ~~as~~ are used as cooling water pumps of motor vehicles, for example, are predominantly configured as so-called closed impellers. This means that blades are enclosed between two cover disks, as a result of which closed flow conduits are formed with the impeller. Such closed impellers allow achieving high pumping efficiencies.

The disadvantageous aspect is, however, that the production of such impellers is complex. Such a production can occur, for example, in two-part form in such a way that, on the one hand, a cover disk is produced with blades formed thereon, and on the other hand, the other cover disk is produced separately from one another and are joined to form the final impeller. Such a solution is shown in U.S. Pat. No. 2,710,580 A. It is also possible to produce such an impeller in an integral way in a casting method. A complex multi-part casting mold is required for this purpose which is provided with a plurality of slides which shape the flow conduits.

Page 2, lines 18 to 30, replace the paragraph with the following amended paragraph.

SUMMARY OF THE INVENTION

It is provided in accordance with the invention that the impeller is provided with a completely open configuration on the pressure side opposite of the cover disk and that the blade is curved at least in the interior section in a three-dimensional manner and is provided in the outer section with a substantially two-dimensional curvature. The relevant aspect in the invention is that it is managed through a special embodiment of the blade to achieve high efficiencies even in an open impeller. In this case, ~~and an~~ impeller which is open on the intake side is not used as in the known pumps for dirt-laden media or the like, but an impeller is used which is open on the pressure side. A three-dimensional curvature within the terms of the invention is understood as a configuration of the blades which comprises not only a curved form in the radial direction but also an included position or a curvature in the axial direction.

Page 5, line 11 to page 6, line 9, replace the paragraphs with the following amended paragraphs.

The present invention is now explained in closer detail by reference to the embodiments shown in the drawings, ~~wherein:~~

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 shows a sectional view through a radial pump in accordance with the invention with an impeller according to the invention[.];

Fig. 2 shows a sectional view of the impeller of Fig. 1 on an enlarged scale;

Figs. 3 and 4 show views of the impeller in accordance with the invention from the intake side and from the pressure side;

Figs. 5 and 6 shows axonometric views of the intake side and of the pressure side, and

Fig. 7 shows an impeller for an axial pump in an axonometric view.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

The radial pump of Fig. 1 consists of a housing 1 which is shown only partly and comprises a bearing part 2 and the housing wall 23. A pump shaft 4 is held by a bearing 3 which his only shown schematically, with an impeller 5 being fastened to the one end of said ~~the~~ pump shaft. A pulley 6 for driving the pump is arranged at the opposite end of the pump shaft 4. A pump lid 7 is fastened to the housing wall 23, which lid encloses the intake chamber 8 of the pump. The pressure chamber 9 of the pump is arranged in the radial direction outside of the impeller 5. An axial face seal 10 seals the intake chamber 8 and the pressure chamber 9 relative to the bearing part 2.

The impeller 5 consists of a hub section 11 which is fastened to the pump shaft 4 by way of a bushing 12. Blades 13 proceed from the outer

circumference of the hub section 11, which blades are configured for conveying the ~~company~~conveyed medium. The blades 13 are joined integrally with a cover disc 14 on the intake side, which ~~disk~~disc comprises a central opening 15 through which the ~~conveying~~conveyed medium is drawn in. On the opposite side, the impeller 5 is completely open, meaning that the blades 13 ~~comprised~~comprise a free face surface which is not covered.